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ABSTRACT

A discussion on content-based second/foreign language instruction reviews recent literature, extracts elements of content-based instruction (CBI) felt to be critical, looks at those elements from the perspective of Japanese university instruction, and poses some questions that CBI program developers might ask before proceeding. Various kinds of CBI are distinguished: theme-based instruction; sheltered content instruction; adjunct instruction; and English for special purposes. Other topics discussed include these: targeted cognitive and academic skills; classroom culture; the role of discourse communities; basic language acquisition issues in CBI; and applicable program models. (Contains 40 references.) (MSE)

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Feasibility of Content-Based Instruction in Japanese Foreign Language Courses : Some Questions to Ask

A.Sue WILLIS

A.S. ウィリス．日本の大学英語教育におけるコンテント中心教授法（CBI）の有効性．*Studies in International Relations (Intercultural Relations 19) Vol. 19, No. 1, 1998, pp. 39－60*

コンテント中心教授法（CBI）を支持する声は大きい。コンテント中心教授法は全ての言語学習者（とりわけ外国語学習の分野）の要求に応えるものではない。ましてやそれが言語学習者の目標や資質全てに適合するものでもない。この教授法は様々な可能性を提供するが，その手法を指導カリキュラムに導入する際，それが抱える様々な問題や前提条件を検討する必要がある。

Introduction

One of today's favored language teaching curriculum designs is content-based instruction (CBI). The design has been around in its various forms for a long time but has been mostly confined to Canadian K-12 (kindergarten through high school) programs and to small, specialized, highly intense short courses for business or science. However, in the development that has brought it to the fore, it has taken on many other shapes and found more widespread use.

Japanese university language program planners have begun to incorporate or at least consider incorporating the idea. Yet there are some questions that should be asked before fully pledging a program to content-based instruction. These questions derive from the study of the CBI field in general; they are the factors that have arisen via ethnographic studies and factors that have been tested by experimental and other primary research.

This article presents some of the elements one researcher found to be critical by way of a literature review and through her own research. It then looks at those elements in a very general way from the perspective of the Japanese university and poses questions that would-be CBI program planners might well ask themselves before proceeding. The article does not answer the questions, but it's hoped that these summaries of the issues will give curriculum planners some directions for their considerations.

Overview of the field

Brinton, Snow, and Wesche (1989) name three basic designs that the field most frequently cites: theme-based instruction, sheltered content instruction, and adjunct instruction.

In theme-based instruction, the content – content being a total issue, topic or discipline that can be studied in many facets or subtopics – is only a mechanism, a tool by which language can be analyzed and practiced. The theme-based design, taught by a language teacher, very importantly provides a natural context and a variety of activities that cover as many genres as the topic will touch and incorporates all language skills. The above authors believe this

to be the most widespread type of CBI.

Sheltered content instruction segregates second-language-learning students of a content area, a particular subject matter. That is, no native speakers are included in the class. Rather than a language teacher, the class is taught by a subject area specialist who is expected to adjust and simplify and provide a low-stress learning environment. The texts are often linguistically modified.

Under adjunct instruction, second language (SL) students in a mainstream class – that is, a class taught for target language (TL) speakers – are provided with an additional class. The additional class is a language course that works with the same materials and assignments as that mainstream content class and serves to clarify the material in the content class. Thus the students are both segregated – in the language course – and integrated – in the content class. Linguistic modifications are used in the adjunct model, also.

Crandall (1994) separates the designs differently, but her categories are not confined to tertiary levels, which is the focus of this article, and in fact many of her models are probably used more in K-12 than at the adult or university level. In her explanations, content-based language instruction uses academic content matter as a medium to teach linguistic, cognitive, and academic skills. Sheltered content instruction and theme-based instruction are defined the same as in Brinton, Snow, and Wesche (1989), but Crandall adds a design she calls merely "sheltered" instruction, where a subject matter curriculum is adapted to limited language proficiency so that students receive only a part of their field of study in a foreign or second

language. This is also called immersion and began with and is widespread in elementary bilingual education. What she calls the "language across the curriculum" model attempts to integrate language instruction with the total curriculum of a school and, as with adjunct models, it involves team teaching. Some schools, she says, are able to progress their SL students from content instruction in the first language to sheltered content instruction to mainstream classes in the target language.

Questions: Thus, already we see a question raised for anyone considering CBI: What particular design of content-based instruction is suitable for an individual program, and if none of the extant designs are appropriate, what blend of them is do-able and profitable? These designs, for the most part, are biased for second language situations, but the theme and sheltered models are applicable to foreign language conditions. Is it not also possible to use a sort of inverse of the adjunct model, wherein students attend a foreign language version of a class they are taking in their native language?

Others would add English for specific purposes (ESP) to the list of CBI designs. ESP is highly specialized instruction in a particular discipline and is taught to professionals and other specialists, such as graduate students, to give them the knowledge and proficiency they need to carry out the work in their fields of expertise either in or with keen understanding of a second language environment.

In the first examination of the nature of CBI and the studies surrounding it, it is natural to follow the discussions on and work in

ESP as well. At the outset, in fact, CBI and ESP are joined in the basic concept of the language class that is planned around disciplines or topics signified by student need or interest. Brinton (1993) clearly compares the two in their mutual focus on an emphatically "discourse-embedded" use of language in real situations – what is called contextualization (Oller 1984) – rather than on what she considers to be the traditional teaching of language forms and functions taken out of their natural contexts. Mohan (1986) and Oller (1984) say that many scholars now believe that a second language is learned not so much by direct instruction in the rules of language, but by using the language in meaningful contexts.

Questions: How important is contextualization? Japanese students have been learning (or at least studying) English for many years without what the language field would call context. Has it served them well enough? Are they able to change to a contextual language classroom abruptly, that is, without the gradual evolution that most regions who use CBI have historically undergone? Also, what type of contextualization is useful for them? There is, after all, context provided in the long- and widely-used functional/notional syllabus. For the Japanese university student, is there a need for the profound, precise, and narrow contextualization of the type that CBI/ESP provide? Or does an everyday social context provide for them sufficiently – or better?

Widdowson (1983) provides another 'definition' of ESP that creates another set of inquiries for curriculum establishment. He says that,

based on purpose, ESP has classifications running on a continuum. On one end is what he calls training. It is highly specialized and content-bound and achieves practical applications of language. On the other end – and this is where it clearly intersects with CBI – is what he terms educational ESP. Educational ESP involves the development of communicative capacity on top of content-language knowledge. In fact, he extends this end of the scale so far to the other extreme that he says it "shades into GPE" (general purpose English).

Questions: Is there a question of training need in the Japanese university? That is, since the world's technology is so heavily anglicized, is it expedient that English teaching take a sharp turn toward hard training that includes English-bound cognitive skills, culture, and specialized language?

Cognitive/academic skills and classroom cultures

Cognitive skills and critical thinking, particularly as outlined by Cummins (1979) as cognitive academic language proficiency (CALP) is integral to the discussions of content-based ESL instruction. The literature on CBI and ESP focally and at length address cognitive skills. An overwhelming majority of their cases are academically based or of such sophistication as to require trained cognition. As Swales (1988) points out, though, cognitive styles necessary for learning a discipline (citing Flowerdew 1986) and those thought to be good language learning strategies (citing Hartnett 1985) may not be compatible. "There is little similarity between the functions and forms of language in a language class and in a content class" says Swales

(1988, p. 51). He deduces that it would be countereffective to work against what is known or thought to be true about cognition in language learning, so it is necessary to give much attention to the needs for these separate learning areas and to investigate how to integrate them.

If a preponderance of the literature is right in purporting that a fundamental element in the practice of CBI is the teaching of cognitive skills and critical thinking, and if Swales' findings are accurate, then it behooves researchers not only to study CBI and ESP as one, but also to look at some basic literature regarding English for Academic Purposes (EAP) and especially that which directly connects EAP with CBI and ESP (Blue 1993; Chamot and O'Malley 1986; Fanning 1993, 1988; Adamson 1990). Indeed, Brooks (1988) says that language teaching, content teaching, and thinking activities are essentially inseparable and mutually dependent.

Swales also notes, though, paradoxically, that many studies have shown that there may in fact not be any truly content-dependent cognitive styles but that these ways of cognition may themselves vary according to culturally-bound pedagogy. That is, culture in a societal sense rather than in the realm of a discipline or profession. Kaplan (1992) would agree.

Perhaps more in ESP than in CBI, it is necessary to at least be aware of, if not understand, the mismatches that exist in academic classroom cultures and cross-culturally within a discipline (see Barron 1991; Ellis and Roberts 1987; Kaplan 1992). In CBI if students intend an academic career in the SL, it is acceptable to teach and expect conformation to a standard of academic skills used in the SL

classroom culture. In ESP, however, learners may or may not intend to carry out their skills in the SL environment. In the second case, then, though they must be taught enough of a disciplinary culture to aid knowledge transfer and cross-cultural coordination, they may not be expected to conform completely to a cultural learning mode. Koch (1990) follows how English language teaching (ELT) grew to embrace the teaching of culture.

Questions: Whether or not there are content-dependent cognitive styles, if there are cultural pedagogies, then must we seek a well-defined contrastive analysis of Japanese and English cognitive and pedagogical styles? And after such an analysis, what do educators do with the results? Is there something in the contrast that is antithetical? Should English departments teach against Japanese pedagogy? Or should they simply make students aware that there are differences, both acceptable in their own educational and language realms?

The integrated teaching of cognitive academic skills with language teaching is usually considered to be EAP. With all the insistence that these skills are fundamental to CBI, then EAP must be subsumed in the category, too. However, as integral as English for academic purposes is to CBI, Fanning (1993) disentangles academic English teaching at least from ESP on the basis of four points: time pressure, hard terminology, use of authentic material and situations, and use of literature. The presence of the first three and the purposeful omission of the fourth are characteristic of ESP, and the converse is true of EAP. In general, CBI can also be separated from ESP on the same

terms because, though the four elements may be present in CBI, none of the first three are necessary.

There are those who say that cognitive skills is in fact a dividing point that distinguishes EAP and ESP on another basis. They say ESP students are professionally or occupationally oriented and that their needs are not for the academic realm but for the workplace and are highly field specific – in linguistic structures, sociolinguistic strategies, discursive-rhetorical skills, and even critical thinking skills (Courtney 1988; Swales 1990; Kaplan 1992; Tedick 1990). These do not represent the field in the majority, however, because there is probably an equal argument that says that the specificity of ESP can work against the ESP learner. Yet even the latter do not overtly say that ESP curricula should include CALP.

Questions: Precisely, the questions above have had to address the question of final goals. What product does the Japanese university desire? And where is the Japanese university sending that product? How much of the second language cognition and culture is necessary if the graduate is not going to be in an SL environment – either academic or professional? Now, in this last discussion, it seems that there may be a choice to be made between ESP and the teaching of cognitive academic skills. If there is a dichotomy, which tail is most useful for the Japanese university? Is there any one answer for Japanese universities in general, seeing that there is a range of general to very special curricula amongst them?

Discourse communities

Though Brinton (1993) contrasts ESP and CBI in their evolutions and some current factors, even in these contrasts there must be consolidated consideration in moving to either program. Basically, ESP has come up through commercial technological fields, whereas CBI has developed wholly in the academic arena. They differ, she says, in student populations served, skills taught, and research traditions. ESP populations are well defined and homogenous; a CBI student body doesn't fall into one category of background, abilities, or instrumental goals. The latter group is broader, more varied, and heterogeneous. ESP learners are instrumentally motivated; CBI students are motivated by general knowledge acquisition.

The nature of ESP calls out learners that have to deal in the environment of their specializations – the discourse community, as Swales (1990) terms it. That discourse community has its own distinguishing lexis, genres, and "participatory mechanisms." Candlin (1978) asserts that in science, concepts, reasoning processes, and discourse structures are common to practitioners, but he wonders if there are also familiar tasks common to these specialist learners. Using the scientific method in an English in Science and Technology (EST) analysis, Tarantino (1991) found a uniformity and universality of scientific discourse. Candlin (1978) found that some processes were common to speakers of different languages in studying science. Language identifies us with a social group united around a discipline, according to Graham (1984) and Quinn (1988). A tenet, though, of Swales' construct is that its members have at least a certain degree

of content expertise.

Thus, to enter the target discourse community in a second language, the learner must acquire content, and it's not inappropriate and in fact may be necessary to learn that content embedded with its second language nuances in a CBI language class (Koch 1990). So ESP generally aims at providing more socially and professionally pragmatic competence than does CBI. That is, ESP students generally need to leave the ESP course and directly enter their fields (Tarantino 1988, 1991), so they must acquire a span of linguistic strategies that are both broader and narrower than strict CBI students: broader in the sense that they need social skills for varied publics that have an expectation of people in their fields, narrower in that their syllabus may be highly specialized and technical.

Questions : Again, as is always the case in curriculum planning, the question of goals resurface. What use do and will Japanese university graduates have for being part of a discourse community ? In Japan, the ministry of education has announced their intention to change the educational system so that the Japanese citizen will better suit the modern world and its technology. Does this not mean that they want their populace to fit into the myriad of international discourse communities ? or at least be synchronized with the thinking styles of the West ?

CBI, of course, teaches significant content, but with emphases and targets dissimilar to ESP. In CBI there is not as much a sense of cooperative work and information transfer within the student body

and its specialty field as there is in ESP. On the contrary, in fact, the language and content and cognitive skills syllabus of a CBI course are more often aimed at individuals and their separate personal aspirations in content or broader area of learning. A content area may temporarily or on the surface unite students by using a specialized content lexis and by teaching standard cognitive skills. However, it does not do so to the point of drawing them into a content 'society' like the discourse community. CBI students must acquire pragmatics of learning strategies and skills, but those generally confined to a broadly transferrable general 'classroom culture.' This classroom culture may vary more than we think, however, in that some disciplines require more interaction than others, and some require attention to lecture or reading skills more than others.

Questions: Having such a close resemblance to ESP, even in its distinctions CBI must be questioned in its application to the Japanese university. Though ESP exists notably for narrow and highly specialized 'audiences', CBI is more flexible. Does it flex enough, though, to cover the needs of Japanese university English programs? On the other hand, the final statement above reminds planners to investigate the nature of their separate content curriculum and ask, what does our discipline require in the way of skills and interaction?

Basic language acquisition

There are many basic issues of language acquisition and language teaching involved in CBI, and in fact, Swales (1988) and Hutchinson and Waters (1987) have proposed that CBI, in its ESP form in

particular, is actually the true fulfillment of SL teaching.

End targets of CBI programs differ. For example, some CBI designs are aimed at language acquisition rather than content acquisition, and others vice versa. This is a major division point among CBI types. In the many where students' language acquisition is the aim of the program and therefore of all its courses, content acquisition is significant only as it is useful in the student's broader utilization of the SL. Very little research has been done directly testing CBI's effect on language acquisition in comparison to non-CBI's effect. Willis (1997) found that there was no statistical significance. However, many of the stronger names in the field insist that it does help at least at some levels.

For some programs there has to be a decided marriage between language learning/development and content language instruction. In trying to recreate, revive, or renew student interest, teachers and programmers may need to keep uppermost in mind the fact that their students need to learn broad-based language usage. This may be only aside from the highly specialized ESP, however, that covers most of the content-based foreign language teaching field as it stands now.

Questions : Again, what is the aim of English programs in Japanese universities ? And again, what do they hope to see as the end product ? The end decidedly dictates the means in the case where means can decidedly mold differences. And here is such a case. Do Japanese universities want to assure general language skill over any special content-language acquisition ? Are the instances where theorists insist that CBI boosts general language acquisition substantial

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enough for curriculum-builders' to put their trust in them? Then, too, because we are here considering the practicality of an English program's use of CBI, the balance of content and language acquisition must be decided dependent on how integrated the English program is or can be with the rest of the university curriculum – and faculty. How willing are Japanese content faculty to work with, or make allowances for expertise among, the English faculty? Is it necessary to hire doubly-qualified faculty in the English department to satisfy them and/or the national ministry of education?

Applicable models

For a postsecondary study, in searching the literature it is necessary to determine whether to review the literature on CBI in the elementary and secondary school (K-12) – necessary because a preponderance of CBI literature focuses on K-12. However, though the controversy over the differences between child and adult second language learning ranges, it is generally concurred that between the groups there are different cognitive strategies – if not underlying human language apparatus (Chomsky's Language Acquisition Device). The K-12 literature, then, would seem in some way irrelevant and perhaps unhelpful in this study. This is not, however, completely so.

In examining K-12 literature in order to apply it to tertiary education, one must be careful to note what theories and propositions in that literature do or do not apply to the adult. For example, Cantoni-Harvey (1987) says that problems arise when a learner's limited command of English doesn't coincide with his capacity in higher-

order tasks in the native language. There is applicability here but with limitations or variation. That is, many adults, particularly first-language illiterate adults or undergraduates, may be at a juncture where they need to form new academic or study skills in their first language and are now in a new SL setting, and so must learn these skills in that language with the nuances of the second language. They may or may not have acquired the higher-order thinking skills necessary for the SL or the college classroom, but they have at least acquired an adult strategy that is higher than that of a child. In an even more limited way, as discussed before, educated professionals or graduate students may need to learn some second-language subtleties of the classroom discourse or illocution in the SL. Their basic higher order cognition, however, is probably in place, so the application of such a notion as Cantoni-Harvey's and also of Chamot's (1983) urging to gradually transfer students into a classroom may not be of great importance to those in higher or adult education, thus rendering the models relatively irrelevant.

Question : With what has been considered an educational background that does not match Western style, do Japanese university students fit into this category of young adults who are not ready to plunge into academic second language learning ?

In a case that hardly represents the overwhelming significance of the issue it addresses, Chamot (1985) presents a design that teaches content from the beginning level of exposure to the TL. The important issue in tertiary CBI that this touches is at what language

proficiency level CBI can be taught. Though founded on content and emphatically contextualized, CBI is still highly language focused. As such, it might take complex analysis to tease out the two types of learning cognitions to see whether hers is an applicable model or not. Also, Chamot covers the research on time needed to transfer CALP to the L2 – questionable, too, in its applicability because of the differences between child and adult learning. On the other hand, she cites Honeyfield (1977) regarding simplifications of texts with an important deduction for adaptation of authentic texts and materials so important and controversial in tertiary CBI/ESP situations. Though the majority of Chamot's piece might be found not to contribute to a study of a tertiary setting, this one singled-out point is certainly one that requires expeditious investigation.

Questions: If it can eventually be concluded that child and adult learning are comparable at this point, what level of language proficiency does allow a learner to successfully learn with CBI? If there is a prerequisite level for success, have Japanese university students reached it so that they can be put into an instructional environment that is not completely language focused?

On the other hand, there is quite a good foundation for looking at some of the junior and high school research and designs. It is generally concurred that the dividing line between child and adult language-learning cognition basically falls around 11 or 12 years of age. Though there are some other differences between teenage and adult learning, they are not so far reaching as those between child and

adult. Therefore, the literature on junior high and high school CBI could be of value to apply to tertiary settings, particularly a university setting. Also, the CBI programs at these lower levels, in some regions, especially Canada, are so widespread and developed that their designs can be useful in tertiary settings. Some of the literature on these programs is quite detailed and well thought out in regard to design (Cantoni-Harvey 1987; Crandall 1987, 1993; Kwiat 1986; Snow and Brinton 1988), and examining them at least as a basis for adaptation would benefit postsecondary curricula. For example, Terdy (1986) has an example and design framework for integrating content in ESL reading skills classes in junior high and high school. This might be applicable because of the similarity in cognition between these age levels and adults and useful because reading skills are so important at university levels. (In fact, Adamson (1990) finds reading to be the most important skill.)

Question : Do Japanese university students' skills overlay their junior high and high school counterparts as general language acquisition studies conclude about learners in general?

In much of the K-12 literature, there are foundational design principles to be gleaned and transferred to tertiary settings, particularly in determining syllabus components and in creating context and authenticity (Willis 1997). Willis also notes several cases where long-tried and successful CBI classroom techniques may be applicable to tertiary education.

However, though it may offer worthwhile generators of thought

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and bases for adaptations, there is not much applicable empiricism in the K-12 studies, and whatever may be applied to tertiary settings may necessitate a high degree of manipulation. In contrast, all the ESP literature is adult and involves genre, discourse and cognitive analyses and can in other ways, too, be united with CBI. Thus, it seems that large voids in CBI studies can be filled by ESP literature and research contributions. Willis (1997) reviews a number of these types of studies as well as some of other types of postsecondary CBI.

Question : Underlying (or overshadowing) all the questions of what is applicable in these studies and their like is the question : How do we apply second language teaching experience, study, and research to foreign language classrooms ?

Conclusion

The questions posed in this article are of course not comprehensive, and some have not been weighted here as they should against others. They are only meant to be a foundation, a stimulus, a reminder or even a constraint. Many educators and curriculum planners may have a wholesale attraction to the trend toward CBI without substantiating its practicality or usefulness in the unique Japanese university environment.

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